

7. Which liquid boiled first (i.e. had the lowest boiling point):

- The non-polar liquid boiled first.

8. Explain how intermolecular attractions affect the boiling point of a substance.

The stronger the intermolecular forces the higher the boiling point of the substance.

9. Explain why polar and non-polar substances won't stay mixed with each other.

The polar substances have a much stronger attraction to each other than to the non-polar molecules. They much rather stick with polar molecules.

10. Which molecule had the strongest attraction:

- the most polar molecule

11. Explain why polarity has an affect on the strength of attraction between molecules.

The larger the polarity the more polar molecules there are. This increaes the strength of the intermolecular attraction.

12. Which substance will have the highest boiling point:

- 1,4,7-heptanetriol

13. Explain your choice for highest boiling point:

1,4,7- heptanetriol has the most electronegativity and polar bonds. this makes it the hardest to break apart and to boil.

14. Which molecule pairs had the strongest attraction (check all that apply):

- the two large straight molecules
- the large curved and circular molecules

15. Propane boils at -42iC, butane at 0iC, and pentane at 36iC. They are all straight molecules. Which one is the biggest?

- pentane

16. Small molecules did not attract well. However, only some of the large ones had a strong attraction. Describe how both size and shape play a role in the strength of the London Dispersion attraction.

The more molecules the more atoms to have attractions between them. But the more atoms in a polar molecule that touch another, them more attractions and the stronger the forces.

17. Snapshot with annotations indicating hydrogen bonds: